

Appln. No. 10/693,725
Amendment dated January 10, 2005
Reply to Office Action mailed October 15, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

1 1. (Currently Amended) A stabilized ladder system for comprising:
2 a ladder assembly comprising a pair of rails and a plurality of rungs
3 extending between the rails, each of the rails having an upper end and a
4 lower end, each of the rails having a lower cavity extending into the lower
5 end of the rail, each of the rungs having opposite ends and at least one of
6 the rungs having an end cavity extending into each of the opposite ends of
7 the rung through the rails;

8 a ladder leveling assembly comprising a lower extension arm mounted
9 on each of the rails of the ladder assembly, each of the lower extension arms
10 being extendable from the lower end of one of the rails, each of the lower
11 extension arms having an upper end slidably inserted into the lower cavity
12 of the rail, each of the lower extension arms mounted thereon being
13 extendable from the rail for engaging the ground surface; and

14 a lower stabilizer assembly for stabilizing a lower portion of the
15 ladder assembly with respect to a ground surface, the lower stabilizer
16 assembly comprising a pair of outboard foot assemblies with a position of
17 each of the outboard foot assemblies being laterally adjustable with respect
18 to the rails of the ladder assembly such that a lateral spacing of the pair of
19 outboard foot assemblies is adjustable.

1 2. (Currently Amended) The system of claim 1 wherein each of the
2 outboard foot assemblies comprises:

3 a lower outboard rail extending substantially parallel to the rails of
4 the ladder assembly, the lower outboard rail having a lower end, a lower end
5 cavity extending into the lower end of the lower outboard rail;

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6 an upper lateral brace arm having an inner end extending into one of
7 the ends of the rungs of the ladder assembly, an outer end of the upper
8 lateral brace arm being mounted on the upper outboard rail, the inner end of
9 the upper lateral brace arm being slidably received in the rung for adjusting
10 a lateral spacing between the upper outboard rail and one of the rails of the
11 ladder assembly, the upper lateral brace arm having a plurality of apertures
12 formed therein for receiving a pin when the upper lateral brace arm is at
13 more than one lateral spacing from one of the rails of the ladder assembly;

14 a lower lateral brace arm having an inner end extending into one of
15 the ends of the rungs of the ladder assembly, an outer end of the lower
16 lateral brace arm being mounted on the lower outboard rail, the inner end of
17 the lower lateral brace arm being slidably received in the rung for adjusting
18 a lateral spacing between the lower outboard rail and one of the rails of the
19 ladder assembly, the lower lateral brace arm having a plurality of apertures
20 formed therein for receiving a pin when the lower lateral brace arm is at
21 more than one lateral spacing from one of the rails of the ladder assembly;

22 securing means for releasably securing the position of at least one of
23 the lateral braces brace arms with respect to a respective one of the rungs of
24 the ladder assembly; and

25 an outboard extension leg having an upper end slidably inserted into
26 the lower end cavity of the lower outboard rail, the outboard extension leg
27 being extendable from the lower outboard rail for engaging the ground
28 surface.

1 3. (Currently Amended) The A stabilized ladder system of claim 1
2 additionally comprising:

3 a ladder assembly comprising a pair of rails and a plurality of rungs
4 extending between the rails, each of the rails having an upper end and a
5 lower end, each of the rails having a lower cavity extending into the lower
6 end of the rail, each of the rungs having opposite ends and at least one of

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7 the rungs having an end cavity extending into each of the opposite ends of
8 the rung through the rails;

9 a ladder leveling assembly comprising a lower extension arm mounted
10 on each of the rails of the ladder assembly, each of the lower extension arms
11 being extendable from the lower end of one of the rails, each of the lower
12 extension arms having an upper end slidably inserted into the lower cavity
13 of the rail, each of the lower extension arms mounted thereon being
14 extendable from the rail for engaging the ground surface; and

15 a lower stabilizer assembly for stabilizing a lower portion of the
16 ladder assembly with respect to a ground surface, the lower stabilizer
17 assembly comprising a pair of outboard foot assemblies with a position of
18 each of the outboard foot assemblies being laterally adjustable with respect
19 to the rails of the ladder assembly such that a lateral spacing of the pair of
20 outboard foot assemblies is adjustable;

21 a ladder extending assembly comprising an upper extension arm
22 mounted on each of the rails of the ladder assembly, each of the upper
23 extension arms being extendable from the upper end of one of the rails, each
24 of the upper extension arms having a lower end slidably inserted into the
25 end cavity of the rail, each of the upper extension arms being extendable
26 from the rail for engaging a structure.

1 4. (Original) The system of claim 1 wherein each of the rails has an
2 upper cavity extending into the upper end of the rail, and additionally
3 comprising an upper stabilizer assembly for stabilizing an upper portion of
4 the ladder assembly with respect to a structure, the upper stabilizer
5 assembly comprising a pair of outboard support assemblies with a position
6 of each of the outboard support assemblies being laterally adjustable with
7 respect to the rails of the ladder assembly such that a lateral spacing of the
8 pair of outboard support assemblies is adjustable.

1 5. (Currently Amended) The system of claim 4 wherein each of the
2 outboard support assemblies comprises:

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3 an upper outboard rail extending substantially parallel to the rails of
4 the ladder assembly, the upper outboard rail having an upper end, an upper
5 end cavity extending into the upper end of the upper outboard rail;

6 a lateral brace arm having an inner end extending into one of the ends
7 of the rungs of the ladder assembly, an outer end of the lateral brace arm
8 being mounted on the outboard rail, the inner end of the lateral brace arm
9 being slidably received in the rung for adjusting a lateral spacing between
10 the upper outboard rail and one of the rails of the ladder assembly;

11 securing means for releasably securing the position of the lateral
12 brace arms with respect to a respective one of the rungs of the ladder
13 assembly;

14 an outboard extension arm having a lower end slidably inserted into
15 the upper end cavity of the upper outboard rail, an upper end of the
16 outboard extension arm having a contact member mounted thereon, the
17 outboard extension arm and the contact member being extendable from the
18 upper outboard rail for engaging the structure.

1 6. (Currently Amended) ~~The A stabilized ladder system of claim 1~~
2 additionally comprising:

3 a ladder assembly comprising a pair of rails and a plurality of rungs
4 extending between the rails, each of the rails having an upper end and a
5 lower end, each of the rails having a lower cavity extending into the lower
6 end of the rail, each of the rungs having opposite ends and at least one of
7 the rungs having an end cavity extending into each of the opposite ends of
8 the rung through the rails;

9 a ladder leveling assembly comprising a lower extension arm mounted
10 on each of the rails of the ladder assembly, each of the lower extension arms
11 being extendable from the lower end of one of the rails, each of the lower
12 extension arms having an upper end slidably inserted into the lower cavity
13 of the rail, each of the lower extension arms mounted thereon being
14 extendable from the rail for engaging the ground surface; and

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15 a lower stabilizer assembly for stabilizing a lower portion of the
16 ladder assembly with respect to a ground surface, the lower stabilizer
17 assembly comprising a pair of outboard foot assemblies with a position of
18 each of the outboard foot assemblies being laterally adjustable with respect
19 to the rails of the ladder assembly such that a lateral spacing of the pair of
20 outboard foot assemblies is adjustable;

21 a medial stabilizer assembly for stabilizing a middle portion of the
22 ladder assembly with respect to a ground surface, the medial stabilizer
23 assembly comprising a pair of outboard steadyng assemblies with a position
24 of each of the outboard steadyng assemblies being laterally adjustable with
25 respect to the rails of the ladder assembly such that a lateral spacing of the
26 pair of outboard steadyng assemblies is adjustable.

1 7. (Currently Amended) The system of claim 6 wherein each of the
2 outboard steadyng assemblies comprises:

3 a medial outboard rail extendable substantially parallel to the rails of
4 the ladder assembly, the medial outboard rail having a lower end, a lower
5 end cavity extending into the lower end of the medial outboard rail;

6 a medial brace arm having an inner end extending into one of the ends
7 of the rungs of the ladder assembly, an outer end of the medial brace arm
8 being mounted on the outboard rail, the inner end of the medial brace arm
9 being slidably received in the rung for adjusting a lateral spacing between
10 the medial outboard rail and one of the rails of the ladder assembly;

11 securing means for releasably securing the position of the medial
12 brace arm with respect to a respective one of the rungs of the ladder
13 assembly;

14 an outboard steadyng arm having an upper end slidably inserted into
15 the lower end cavity of the medial outboard rail, the outboard steadyng arm
16 being extendable from the medial outboard rail for engaging the ground
17 surface.

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1 8. (Original) The system of claim 1 wherein the ladder assembly
2 comprises a scaffold structure with a pair of scaffold supports, each of the
3 scaffold supports having the pair of rails and the plurality of rungs, the
4 scaffold structure also including a platform for extending between the
5 scaffold supports.

1 9. (Original) The system of claim 1 wherein the ladder assembly
2 comprises a plurality of ladder sections each having the pair of rails and the
3 plurality of rungs, each of the plurality of ladder sections being pivotally
4 mounted to at least one other ladder section.

1 10. (Original) The system of claim 9 wherein the plurality of ladder
2 sections includes at least five ladder sections pivotally connected together
3 to form a chain of ladder sections, the plurality of ladder sections having a
4 first position in which the ladder sections form a step ladder configuration
5 and a second position in which the ladder sections form a bridging ladder
6 configuration.

1 [[12.]] 11. (Currently Amended) The system of claim 1 wherein each
2 of the outboard foot assemblies comprises:

3 a lower outboard rail extending substantially parallel to the rails
4 of the ladder assembly, the lower outboard rail having a lower end, a
5 lower end cavity extending into the lower end of the lower outboard
6 rail;

7 an upper lateral brace arm having an inner end extending into
8 one of the ends of the rungs of the ladder assembly, an outer end of
9 the upper lateral brace arm being mounted on the upper outboard rail,
10 the inner end of the upper lateral brace arm being slidably received in
11 the rung for adjusting a lateral spacing between the upper outboard
12 rail and one of the rails of the ladder assembly;

13 a lower lateral brace arm having an inner end extending into one
14 of the ends of the rungs of the ladder assembly, an outer end of the

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15 lower lateral brace arm being mounted on the lower outboard rail, the
16 inner end of the lower lateral brace arm being slidably received in the
17 rung for adjusting a lateral spacing between the lower outboard rail
18 and one of the rails of the ladder assembly;

19 securing means for releasably securing the position of at least
20 one of the lateral braces brace arms with respect to a respective one of
21 the rungs of the ladder assembly; and

22 an outboard extension leg having an upper end slidably inserted
23 into the lower end cavity of the lower outboard rail, the outboard
24 extension leg being extendable from the lower outboard rail for
25 engaging the ground surface.

26 a ladder extending assembly comprising an upper extension arm
27 mounted on each of the rails of the ladder assembly, each of the upper
28 extension arms being extendable from the upper end of one of the rails, each
29 of the upper extension arms having a lower end slidably inserted into the
30 end cavity of the rail, each of the upper extension arms being extendable
31 from the rail for engaging a structure;

32 wherein each of the rails has an upper cavity extending into the upper
33 end of the rail, and additionally comprising an upper stabilizer assembly for
34 stabilizing an upper portion of the ladder assembly with respect to a
35 structure, the upper stabilizer assembly comprising a pair of outboard
36 support assemblies with a position of each of the outboard support
37 assemblies being laterally adjustable with respect to the rails of the ladder
38 assembly such that a lateral spacing of the pair of outboard support
39 assemblies is adjustable, wherein each of the outboard support assemblies
40 comprises:

41 an upper outboard rail extending substantially parallel to the
42 rails of the ladder assembly, the upper outboard rail having an upper
43 end, an upper end cavity extending into the upper end of the upper
44 outboard rail;

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45 a lateral brace arm having an inner end extending into one of the
46 ends of the rungs of the ladder assembly, an outer end of the lateral
47 brace arm being mounted on the outboard rail, the inner end of the
48 lateral brace arm being slidably received in the rung for adjusting a
49 lateral spacing between the upper outboard rail and one of the rails of
50 the ladder assembly;

51 securing means for releasably securing the position of the lateral
52 brace arm with respect to a respective one of the rungs of the ladder
53 assembly;

54 an outboard extension arm having a lower end slidably inserted
55 into the upper end cavity of the upper outboard rail, an upper end of
56 the outboard extension arm having a contact member mounted thereon,
57 the outboard extension arm and the contact member being extendable
58 from the upper outboard rail for engaging the structure; and
59 a medial stabilizer assembly for stabilizing a middle portion of the
60 ladder assembly with respect to a ground surface, the medial stabilizer
61 assembly comprising a pair of outboard steadyng assemblies with a position
62 of each of the outboard steadyng assemblies being laterally adjustable with
63 respect to the rails of the ladder assembly such that a lateral spacing of the
64 pair of outboard steadyng assemblies is adjustable, wherein each of the
65 outboard steadyng assemblies comprises:

66 a medial outboard rail extendable substantially parallel to the
67 rails of the ladder assembly, the medial outboard rail having a lower
68 end, a lower end cavity extending into the lower end of the medial
69 outboard rail;

70 a medial brace arm having an inner end extending into one of the
71 ends of the rungs of the ladder assembly, an outer end of the medial
72 brace arm being mounted on the outboard rail, the inner end of the
73 medial brace arm being slidably received in the rung for adjusting a
74 lateral spacing between the medial outboard rail and one of the rails
75 of the ladder assembly;

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76 securing means for releasably securing the position of the medial
77 brace arm with respect to a respective one of the rungs of the ladder
78 assembly;

79 an outboard steadyng arm having an upper end slidably inserted into
80 the lower end cavity of the medial outboard rail, the outboard steadyng arm
81 being extendable from the medial outboard rail for engaging the ground
82 surface.

1 12. (New) The system of claim 3 wherein each of the outboard foot
2 assemblies comprises:

3 a lower outboard rail extending substantially parallel to the rails of
4 the ladder assembly, the lower outboard rail having a lower end, a lower end
5 cavity extending into the lower end of the lower outboard rail;

6 an upper lateral brace arm having an inner end extending into one of
7 the ends of the rungs of the ladder assembly, an outer end of the upper
8 lateral brace arm being mounted on the upper outboard rail, the inner end of
9 the upper lateral brace arm being slidably received in the rung for adjusting
10 a lateral spacing between the upper outboard rail and one of the rails of the
11 ladder assembly;

12 a lower lateral brace arm having an inner end extending into one of
13 the ends of the rungs of the ladder assembly, an outer end of the lower
14 lateral brace arm being mounted on the lower outboard rail, the inner end of
15 the lower lateral brace arm being slidably received in the rung for adjusting
16 a lateral spacing between the lower outboard rail and one of the rails of the
17 ladder assembly;

18 securing means for releasably securing the position of at least one of
19 the lateral brace arms with respect to a respective one of the rungs of the
20 ladder assembly; and

21 an outboard extension leg having an upper end slidably inserted into
22 the lower end cavity of the lower outboard rail, the outboard extension leg

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23 being extendable from the lower outboard rail for engaging the ground
24 surface.

1 13. (New) The system of claim 3 wherein each of the rails has an
2 upper cavity extending into the upper end of the rail, and additionally
3 comprising an upper stabilizer assembly for stabilizing an upper portion of
4 the ladder assembly with respect to a structure, the upper stabilizer
5 assembly comprising a pair of outboard support assemblies with a position
6 of each of the outboard support assemblies being laterally adjustable with
7 respect to the rails of the ladder assembly such that a lateral spacing of the
8 pair of outboard support assemblies is adjustable.

1 14. (New) The system of claim 3 wherein the ladder assembly
2 comprises a scaffold structure with a pair of scaffold supports, each of the
3 scaffold supports having the pair of rails and the plurality of rungs, the
4 scaffold structure also including a platform for extending between the
5 scaffold supports.

1 15. (New) The system of claim 3 wherein the ladder assembly
2 comprises a plurality of ladder sections each having the pair of rails and the
3 plurality of rungs, each of the plurality of ladder sections being pivotally
4 mounted to at least one other ladder section.

1 16. (New) The system of claim 6 wherein each of the outboard foot
2 assemblies comprises:

3 a lower outboard rail extending substantially parallel to the rails of
4 the ladder assembly, the lower outboard rail having a lower end, a lower end
5 cavity extending into the lower end of the lower outboard rail;

6 an upper lateral brace arm having an inner end extending into one of
7 the ends of the rungs of the ladder assembly, an outer end of the upper
8 lateral brace arm being mounted on the upper outboard rail, the inner end of
9 the upper lateral brace arm being slidably received in the rung for adjusting

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10 a lateral spacing between the upper outboard rail and one of the rails of the
11 ladder assembly;

12 a lower lateral brace arm having an inner end extending into one of
13 the ends of the rungs of the ladder assembly, an outer end of the lower
14 lateral brace arm being mounted on the lower outboard rail, the inner end of
15 the lower lateral brace arm being slidably received in the rung for adjusting
16 a lateral spacing between the lower outboard rail and one of the rails of the
17 ladder assembly;

18 securing means for releasably securing the position of at least one of
19 the lateral brace arms with respect to a respective one of the rungs of the
20 ladder assembly; and

21 an outboard extension leg having an upper end slidably inserted into
22 the lower end cavity of the lower outboard rail, the outboard extension leg
23 being extendable from the lower outboard rail for engaging the ground
24 surface.

1 17. (New) The system of claim 6 wherein each of the rails has an
2 upper cavity extending into the upper end of the rail, and additionally
3 comprising an upper stabilizer assembly for stabilizing an upper portion of
4 the ladder assembly with respect to a structure, the upper stabilizer
5 assembly comprising a pair of outboard support assemblies with a position
6 of each of the outboard support assemblies being laterally adjustable with
7 respect to the rails of the ladder assembly such that a lateral spacing of the
8 pair of outboard support assemblies is adjustable.

1 18. (New) The system of claim 6 wherein the ladder assembly
2 comprises a scaffold structure with a pair of scaffold supports, each of the
3 scaffold supports having the pair of rails and the plurality of rungs, the
4 scaffold structure also including a platform for extending between the
5 scaffold supports.

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1 19. (New) The system of claim 6 wherein the ladder assembly
2 comprises a plurality of ladder sections each having the pair of rails and the
3 plurality of rungs, each of the plurality of ladder sections being pivotally
4 mounted to at least one other ladder section.

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1 20. (New) A stabilized ladder system comprising:
2 a ladder assembly comprising a pair of rails and a plurality of rungs
3 extending between the rails, each of the rails having an upper end and a
4 lower end, each of the rails having a lower cavity extending into the lower
5 end of the rail, each of the rungs having opposite ends and at least one of
6 the rungs having an end cavity extending into each of the opposite ends of
7 the rung through the rails;
8 a ladder extending assembly comprising an upper extension arm
9 mounted on each of the rails of the ladder assembly, each of the upper
10 extension arms being extendable from the upper end of one of the rails, each
11 of the upper extension arms having a lower end slidably inserted into the
12 end cavity of the rail, each of the upper extension arms being extendable
13 from the rail for engaging a structure; and
14 a lower stabilizer assembly for stabilizing a lower portion of the
15 ladder assembly with respect to a ground surface, the lower stabilizer
16 assembly comprising a pair of outboard foot assemblies with a position of
17 each of the outboard foot assemblies being laterally adjustable with respect
18 to the rails of the ladder assembly such that a lateral spacing of the pair of
19 outboard foot assemblies is adjustable.